

REMARKS

Entry of the foregoing and prompt and favorable consideration of the subject application, in light of the following remarks, are respectfully requested.

By the foregoing Supplemental Preliminary Amendment, the specification has been amended to replace the originally filed Sequence Listing with the attached copy of the Sequence Listing, which was filed in parent Application No. PCT/SE00/01079. Although the presently filed Sequence Listing is believed to contain identical material to combined Sequence Listings 1 and 2 as originally filed with the present specification, this submission is being made in accordance with the statement pursuant to 37 C.F.R. § 1.821(f), which is submitted herewith. No new matter is believed to have been added.

In addition, all references to SEQ ID NO:2 in the specification and claims have been amended to recite "SEQ ID NO:6". The basis for this amendment is the following: The specification as originally filed was filed with two sequence listings, Sequence Listing No. 1, containing SEQ I NOS:1-5, and Sequence Listing No. 2, containing an additional SEQ ID NOS:1-6 (i.e., which were not duplicative of SEQ ID NOS:1-5 of Sequence Listing No. 1).

In the application as filed, sequence number 1 of Sequence Listing number 2 was referred to as SEQ ID NO 2. That only sequence no. 1 of Sequence Listing no. 2 could have been intended by this indication is clear from a comparison of *page 4, line 4* of the description, where SEQ ID NO 2 is identified as the tcf-operon, versus the information given on *page 36 of the Sequence Listing part under items <223>* referring to sequence no. 1 of Sequence Listing no. 2. Namely, under these items, it is stated that the sequence

no. 1 of Sequence Listing no. 2 is the nucleic sequence of the tcf A, B, C and D putative fimbrial subunits respectively and of the tinR putative transcriptional regulator, i.e., is the sequence of the tcf operon. Therefore, it would have been obvious to anyone studying the application as filed that SEQ ID NO:2 referred to sequence no. 1 of Sequence Listing no. 2. Due to renumbering of the sequences, as indicated herein above, this is now sequence number 6, and should consequently be referred to as SEQ ID NO:6.

To further demonstrate that only this sequence could have been intended, it may be noted that in Sequence Listing no. 2 of the application as filed, only the first sequence was a nucleotide acid sequence, the others being protein sequences.

Moreover, on page 4, lines 16-21, the sequences referred to are DNA sequences. The only DNA sequences appearing in the sequence listing part are present SEQ ID NO:1 and SEQ ID NO:6, since all the other sequences are protein sequences. A comparison of the description of the two sequences on page 4, lines 16-21 versus the entries made under items <223> on page 1 and 36, respectively of the Sequence Listing part clearly shows that the sequence described on page 4, lines 16-18 is SEQ ID NO:1 and the sequence described on page 4, lines 19-21 is SEQ ID NO:6.

In the event that there are any questions relating to this Supplemental Preliminary Amendment, or the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

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Mark-up of Specification

Paragraph at page 4, lines 3-9

Figure 2: Schematic representation of the pTY52 cosmid comprising the *tcf*-operon
[(SEQ ID NO 2)] SEQ ID NO:6.

A *tcf* specific PCR fragment of 11105 bp was cloned into the Expand vector I cosmid (Roche). The insert is represented with a thick black line while vector sequences are represented with thin lines. Relevant restriction sites sequences are indicated. The position of the *tcf*-operon, i.e. *tcfA*, *B*, *C* and *D* [(SEQ ID NO 2)] (SEQ ID NO:6) is represented by a shaded arrow.

Paragraph at page 4, lines 15-21

Sequence listing

[(SEQ ID NO 1)] SEQ ID NO:1 - DNA sequence of the genes encoding the precursor of the *saf* fimbriae unit of *Salmonella enterica* subspecies I.

[(SEQ ID NO 2)] SEQ ID NO:6 - DNA sequence of the genes which encode the precursor of the *tcf* fimbriae unit of *Salmonella enterica* subspecies I serovar Typhi.

Paragraph at page 4, lines 23-29

Deposit information

The phages carrying the inserted [(SEQ ID NO 1)] SEQ ID NO:1, i.e. phages clones B1, D1, F11 and N10 (see Figure 1) have been given the ECACC Accession numbers 99051922, 99051923, 99051924, and 99051925, respectively.

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The cosmide carrying the inserted [SEQ ID NO 2] SEQ ID NO:6, i.e. cosmide pTY52 (see Figure 2) has been given the ECACC Accession number 99051926.



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Mark-up of Claims

1. (Amended) [Peptide] A peptide encoded by a nucleotide sequence selected from [Sequence Listing No. 1 (SEQ ID NO 1)] SEQ ID NO:1 and [Sequence Listing No. 2 (SEQ ID NO 2)] SEQ ID NO:6 for use in medicine.

2. (Amended) Antibodies directed against a peptide encoded by a nucleotide sequence selected from [Sequence Listing No. 1 (SEQ ID NO 1)] SEQ ID NO:1 and [Sequence Listing No. 2 (SEQ ID NO 2)] SEQ ID NO:6 for use in medicine.

3. (Amended) [Nucleotide] A nucleotide sequence selected from [Sequence Listing No. 1 (SEQ ID NO 1)] SEQ ID NO:1 and [Sequence Listing No. 2 (SEQ ID NO 2)] SEQ ID NO:6 for use in medicine.

4. (Amended) A vaccine for the protection against diseases caused by *Salmonella enterica* subspecies I, comprising a peptide encoded by a nucleotide sequence selected from [Sequence Listing No. 1 (SEQ ID NO 1)] SEQ ID NO:1, or antibodies directed against said peptide and, optionally, a pharmaceutically acceptable carrier.

5. (Amended) A vaccine for the protection against diseases caused by *Salmonella enterica* subspecies I serovar Typhi, comprising a peptide encoded by a nucleotide sequence selected from [Sequence Listing No. 2 (SEQ ID NO 2)] SEQ ID NO:6 or antibodies directed against said peptide and, optionally, a pharmaceutically acceptable carrier.

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6. (Amended) A nucleic acid vaccine for the protection against diseases caused by *Salmonella enterica* subspecies I, comprising a nucleic acid sequence selected from [Sequence Listing No. 1 (SEQ ID NO 1)] SEQ ID NO:1 and, optionally, a pharmaceutically acceptable carrier.

7. (Amended) A nucleic acid vaccine for the protection against diseases caused by *Salmonella enterica* subspecies I serovar Typhi, comprising a nucleic acid sequence selected from [Sequence Listing No. 2 (SEQ ID NO 2)] SEQ ID NO:6 and, optionally, a pharmaceutically acceptable carrier.

8. (Amended) A vector vaccine for the protection against diseases caused by *Salmonella enterica* subspecies I, comprising a host in which a recombinant vector comprising a nucleic acid sequence selected from [Sequence Listing No. 1 (SEQ ID NO 1)] SEQ ID NO:1, has been inserted and, optionally, a pharmaceutically acceptable carrier.

9. (Amended) A vector vaccine for the protection against diseases caused by *Salmonella enterica* subspecies I serovar Typhi, comprising a host in which a recombinant vector comprising a nucleic acid sequence selected from [Sequence Listing No. 2 (SEQ ID NO 2)] SEQ ID NO:6, has been inserted and, optionally, a pharmaceutically acceptable carrier.

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10. A method for vaccinating a mammal against diseases caused by *Salmonella enterica* subspecies I, comprising administering a vaccine according to claim 4 to said mammal.

11. A method for vaccinating a mammal against diseases caused by *Salmonella enterica* subspecies I serovar Typhi, comprising administering a vaccine according to claim 5 to said mammal.

12. (Amended) Antibodies directed against a peptide encoded by a nucleotide sequence selected from [Sequence Listing No. 1 (SEQ ID NO 1)] SEQ ID NO:1, and from [Sequence Listing No. 2 (SEQ ID NO 2)] SEQ ID NO:6, for use in a diagnostic method.

13. (Amended) Peptide encoded by a nucleotide sequence selected from [Sequence Listing No. 1 (SEQ ID NO 1)] SEQ ID NO:1, and [Sequence Listing No. 2 (SEQ ID NO 2)] SEQ ID NO:6, for use in a diagnostic method.

14. (Amended) Primers for, or probes that hybridize with, a nucleotide sequence selected from [Sequence Listing No. 1 (SEQ ID NO 1)] SEQ ID NO:1 and [Sequence Listing No. 2 (SEQ ID NO 2)] SEQ ID NO:6, for use in a diagnostic method for the purpose of detecting *Salmonella enterica* subspecies I.

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15. A method for vaccinating a mammal against diseases caused by *Salmonella enterica* subspecies I, comprising administering a vaccine according to claim 6 to said mammal.

16. A method for vaccinating a mammal against diseases caused by *Salmonella enterica* subspecies I, comprising administering a vaccine according to claim 8 to said mammal.

17. A method for vaccinating a mammal against diseases caused by *Salmonella enterica* subspecies I serovar Typhi, comprising administering a vaccine according to claim 7 to said mammal.

18. A method for vaccinating a mammal against diseases caused by *Salmonella enterica* subspecies I, comprising administering a vaccine according to claim 9 to said mammal.